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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/700,073

11/03/2003

Tatsumaro Yamashita

9281-4701

3721

7590

06/20/2005

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EXAMINER

MAY, ROBERT J

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 06/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/700,073

Applicant(s)

YAMASHITA ET AL.

Examiner

Robert May

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/03/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8 and 9-10 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/3/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 7 is objected to because of the following informalities: the word stripe should be in plural tense. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 & 3 is rejected under 35 U.S.C. 102(b) as being anticipated by Donley (US Pat. 1,918,087). Donley discloses in Figures 1-4, a reflecting device comprising a flat surface (1), that acts as an incident face as well as an emitting face because the surface introduces light into the reflecting device and furthermore is described as the point of incidence at which light is reflected back to (Pg 2, line 8). Figures 1-4 disclose a reflection face consisting of prisms (6) formed in a concentric manner from the center radiating to the outer periphery of the lens (Pg 1, Lines 70-72). Figure 3, discloses a light guide portion being the material between the reflector surface (6) and the emitting surface (1) for propagating light.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 8 is rejected under 35 USC 102(e) as being anticipated by Knaack (US Pat. 6,880,945). Knack discloses in Figures 2-4 an incident face (5), as part of an endless light guide shaped in an annular fashion (Fig. 1), and a reflecting face with a plurality of grooves (Fig. 5) formed on one side from which light is reflect from (Col. 5, Lines 9-10).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 2 & 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Donley as applied to claims 1 & 3 above, and further in view of Suzuki (US Pat 6,786,613).

In regard to Claim 2, While Donley does not disclose reflecting grooves with two faces having different inclination angles, Suzuki teaches a spread illuminating apparatus for an LCD screen which utilizes a light reflecting pattern on the bottom surface of a light conducting member in Figure 10 (2) which as grooves with different angles of inclination to each other in order to spread light rays in a uniform manner in spite of the distance from the light source or lamp (11) (Col. 2, Lines 52-55). Therefore, it would have been obvious to one of ordinary skill to use reflecting grooves with two faces or sides having different angles in order to maintain a uniform light intensity across an area as the distance between the groove and the light source changes.

In regard to Claim 10, Suzuki discloses a light source used in conjunction with the spread illuminating apparatus and It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the light source with the spread illuminating apparatus, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donley as applied to claims 1 & 3 above, and further in view of Knaack (US Pat

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6,880,945). While Donley does not disclose a diffusing portion for diffusing light towards the reflection face, However, Knack discloses in Figures 2-4, a light-diverting surface (6) that can be a prism (Col. 3, Lines 47-48) for diverting the light in an intended direction. Therefore, it would be obvious to one of ordinary skill to combine the prism deflector of Knaack with the lens apparatus disclosed in Donley in order to better divert the light from the light source to the reflecting surface via the prism.

Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donley.

In regard to Claim 6, Donley does not disclose the incident surface as being in the very center of the concentric circle, it would generally be obvious to one of ordinary skill to position the incident face at the center in order to evenly distribute the light emitted from the light source. Therefore it is obvious to one of ordinary skill to have an incident face at the center of the circular reflector stripes in order to disperse the light in an even manner.

In regard to Claim 9, Donley does not disclose a light source as being part of the light guide however the disclosed reflecting device is used in conjunction with a light source and it would have been obvious to one having ordinary skill in the art to modify Donley by making the light source integral with the reflecting device, since it has been held to be within the general skill of a worker in the art to make plural parts unitary as a matter of engineering design choice. *In re Larson*, 144 USPQ 347 (CCPA 1965); *In re Lockart* 90 USPQ 214 (CCPA 1951).

Allowable Subject Matter

Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

The prior art does not teach a light guide with a reflection face comprising concentric stripes or grooves wherein a scale is formed on the emitting face with an opening at the center allowing the drive shaft of a pointer to extend through to indicate the location on the scale.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pelka (PCT Published Application WO 98/26212) discloses a low profile lighting apparatus. Cobb (US Pat. 4,989,125) discloses a reflector with ridges

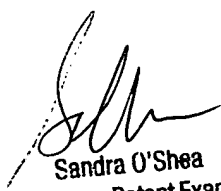
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comprising sides with different angles wherein the ridges form a concentric form from the center to the edge of the structure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert May whose telephone number is (571) 272-5919. The examiner can normally be reached between 9 am– 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306 for all communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval PAIR system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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